TRANSACTIONS OF THE NEW YORK SURGICAL SOCIETY.

Stated Meeting, December 13, 1899.

The President, B. Farquhar Curtis, M.D., in the Chair.

CIRRHOTIC ASCITES TREATED BY PERITONEAL ANASTOMOSIS.

Dr. F. Tilden Brown presented a man forty-three years old, a laborer, who was at three different times a patient in the Presbyterian Hospital. At the time of his first admission, in July, 1898, he complained of indigestion, occasional vomiting, some dyspnœa, and a gradually increasing enlargement of the abdomen, besides swelling of the ankles and feet. The patient's history showed no syphilitic, tubercuious, or rheumatic disease. He had been an habitual user of alcohol for many years, chiefly in the form of whiskey. Abdominal paracentesis relieved the symptoms, and his general condition improving, he left the hospital during the following September. After continuing at his work for several weeks there was a gradual recurrence of his former symptoms, and he again entered the hospital on March 27, 1899. He stated that repeated attacks of diarrhœa had troubled him all winter. Physical examination at this time showed an abdomen moderately distended; it was tympanitic in the epigastric, hypochondriac and umbilical regions, dull in the lumbar and hypogastric regions. A fluid wave was appreciable. The edge of the liver was not palpable because of abdominal distention, but the area of percussion dulness was increased. The stomach tympany reached as high as the upper border of the fourth rib. The superficial veins of the abdomen were more distended than usual. There was slight cyanosis of the lower extremities. The circumference of the abdomen at the umbilicus was thirty-seven inches. The heart apex was not appreciable either by inspection or palpation; it was apparently

in the fourth space, just within the nipple line. The second sound of the heart was slightly accentuated. There was moderate icteroid of the face and conjunctivae. An examination of the right lung gave negative results. On the left side there was dulness posteriorly over the lower fourth and the respiration sounds were rather feeble. The pulse was of low tension; there was no appreciable thickening of the vessel-walls.

The patient was treated for eleven days with diuretics, when he became salivated. As during this time the circumference of the abdomen had decreased only about half an inch, paracentesis was resorted to on April 10, and the patient was discharged improved on April 28, 1899. After working one week his symptoms rapidly reappeared, and he was again admitted to the hospital on May 31, 1899. His abdomen was then more distended than it had been at any previous time, and he furthermore suffered from œdema of the scrotum and the lower extremities. The urine contained albumin and casts. There were evidences of endocardial trouble. The circumference of the abdomen at the umbilicus was thirty-nine inches. Abdominal paracentesis was again performed on June 1, 1899, and 356 ounces of serum were withdrawn; on June 14, 333 ounces; on June 23, 323 ounces; on July 5, 392 ounces; on July 18, 337 ounces; on July 27, 347 ounces; on August 10, 397 ounces; and on August 20, 381 ounces. The total quantity withdrawn in seven weeks was 2866 ounces. At this time the patient was losing ground. He was so well aware of his hopeless state that he readily accepted the proposal of the attending physician, Dr. Tuttle, that he be transferred to the surgical division for operation.

On September 1 the abdomen measured forty-one inches at the umbilicus. The patient was operated on the following day. Under chloroform anæsthesia a five-inch incision was made between the ensiform and umbilicus, and a two-inch incision above the symphysis. Upon the evacuation of the ascitic fluid the omentum was seen to be small, shrivelled and lumpy. The veins were large and tense. The lower margin of the omentum reached to the umbilicus, where it was adherent to the parietal peritoneum. The round ligament was the size of a finger and hard. The liver was hard and small; on its surfaces were the characteristic hob-nail lesions. The spleen was thought to be twice its normal size. The convexities of the liver and spleen, as well as the peritoneal surfaces opposed to them, were vigorously rubbed with dry gauze sponges grasped in metal holders. The parietal peritoneum fronting the omentum was treated in the same way before

suturing these tunics with chromicized catgut. There was but one transverse line of eight or ten sutures. The layers of the upper abdominal wound were separately closed in the usual way. Through the lower wound a glass tube, an inch and one-quarter in diameter, was inserted into the pelvis behind the bladder. Capillary drainage was provided for by sterile gauze introduced through the tube. Adhesive strips half encircling the trunk were drawn over the upper dressing from the ensiform to the umbilicus. For the vomiting, which was troublesome for forty-eight hours after the operation, champagne proved serviceable. The large gauze and cotton dressings had to be changed frequently, and the bed was often wet from serous overflow. At each change a syringe passed into the glass tube would generally remove from six to eight ounces of serum. During the second week the quantity of ascitic fluid was much less. There was primary healing of the upper wound. Compression of the lower part of the thorax and upper part of the abdomen was continued for three months. On the twenty-third day the large glass tube was changed for a smaller one. The patient was then sitting up in bed, eating and digesting solid food for the first time in seven months. His abdomen at the umbilicus measured thirty-five inches. On October 10 (the thirty-eighth day) the patient was out of bed and the drainage-tube was removed. On October 18 the abdomen measured thirty-two and one-half inches. On November 1 both wounds had closed. The abdomen measured thirty-two inches. The patient has a good appetite and his bowels are regular. His urine contains neither albumin nor casts.

Dr. Robert F. Weir said that less than a year ago, he had reported a similar case of his own, but in that instance the result was less gratifying, death having occurred within a week after the operation from peritonitis. As far back as 1892, Lens, a Dutch surgeon, published a case in which he opened the abdomen for ascites resulting from a cirrhotic liver, and in 1896, Drummond and Morison, of Newcastle-on-Tyne, reported two similar cases. Among the ten or twelve cases thus far on record, the mortality and failure is high—about 40 or 50 per cent.,—still, in the cases which recovered there has been a remarkable improvement, and in some a complete restoration to health. The operation is done with the idea of establishing an additional route by which the blood may be tortuously carried from the impeded portal vein into the general circulation. Dr. Weir said that in the hope of still further facilitating this he had attempted some experiments on animals, making an anastomosis between the portal

vein and the inferior vena cava or other veins of lesser size. The idea came to naught, however, as he found that Eck, in 1877, had similarly established such communication between the veins with unfortunate results. The explanation given by Eck was that the venous intestinal blood acted poisonously on the system when introduced so freely and without the assimilation of the liver, etc., into the general circulation. It is desirable that it should be taken up more slowly through the peritoneal adhesions.

Dr. Brown, in closing, referred to Dr. Weir's article on this subject, which was published in the *New York Medical Record* of February 4, of the present year. In Dr. Weir's case, where death resulted from peritonitis, it was thought that infection might have occurred in connection with the drainage apparatus, and Dr. Brown said that in his own case the question of satisfactory and safe drainage gave rise to considerable anxiety. He trusted to copious dressings, which were frequently changed, and to capillary drainage through a glass tube. The speaker said he thought continuous drainage was necessary in these severe cases, and even with every precaution, infection is likely to occur in a certain number of instances.

RESULT OF PLASTIC OPERATION ON UPPER LIP.

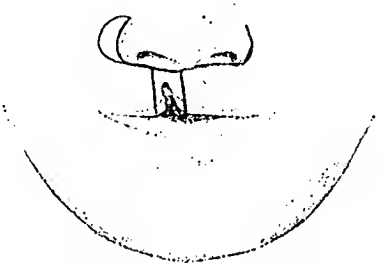
Dr. Charles N. Dowd presented a middle-aged man upon whom he had performed a secondary operation for epithelioma of the upper lip. The patient had first come under his observation about four weeks ago, with a recurrent epithelioma of the upper lip. At the first operation a considerable portion of the lip had been removed, and there was a recurrence in the cicatrix, and a well-marked cicatricial upward retraction of the lip border similar to that which is sometimes seen after operations for harelip. Only a small amount of lip tissue remained.

Dr. Dowd excised the recurrent epithelioma and the cicatrix and then filled in the defect by sliding in tissue from each side. There was loose tissue in the cheeks, as there usually is in adults. Incisions were carried around the alæ of the nose, and in order to permit the sliding in of tissue from the cheek a crescentic piece was excised from the right side, as shown in the diagram. It was not necessary to excise this piece from the left side, as the defect was well filled in without it.

The cosmetic effect of this procedure was very satisfactory. The incision about the nose can scarcely be made out at present and little or no re-contraction has taken place.

Dr. Dowd brought up the question whether this same device

could be advantageously employed in operating on cases of harelip in children. The method is somewhat similar to Dieffenbach's,—that surgeon, however, did not remove the crescentic pieces of tissue from the cheek, but simply made the incisions and then stretched the tissues. The difficulty in applying the method to children is that in them there is likely to be a formation of fibrous tissue with subsequent retraction. In children there is a much greater tendency to the formation of keloids than in adults. The method, however, might surely be used advantageously in operating in adults for harelip or for the cicatricial contractions which are often seen following operations for harelip. Incisions about the alæ of the nose are often made in operating for cancer of the superior maxilla, and the scars are hardly to be seen.



Incisions used in reconstructing the upper lip.

Dr. A. B. Johnson said he thought the result obtained by Dr. Dowd was exceedingly satisfactory. In one case of very extensive defect of the upper lip, the result of an ulceration which had occurred many years before, the speaker said he had resorted to a procedure which was similar to Malgaigne's operation on the lower lip. He took the tissue for a vermilion border from the inside of the mouth below the level of the lip instead of above, as is done in the usual operation. The result was fairly satisfactory. In that case, Dr. Johnson said, the defect was so extensive that he was doubtful whether the method described by Dr. Dowd could have been satisfactorily employed.

WEBBED-FINGERS.

Dr. C. N. Dowd presented a boy who came under his observation last summer. He had previously been operated on for webbed-fingers; the primary condition consisting of an absence of the little finger, the three other fingers being included in the web.

Marked contraction of the fingers followed, and the boy was brought back for further treatment.

In order to correct the deformity Dr. Dowd performed a secondary operation, practically following the method of Zeller, which consists of two incisions on the dorsal aspect of the hand, the triangular flap thus made is reflected and the remainder of the web divided. The fingers are then separated widely, the flap is carried between them and joined to the borders of the cleft and the wound of the palm, the sides of the fingers were then skin-grafted.

When the patient left the hospital the fingers were quite straight, but later on considerable re-contraction occurred. By means of splints and rubbing they have again become fairly straight, but they are defective,—the flexor tendon of one and the extensor tendon of another are congenitally absent. There is no tendency to contraction in the finger which has no flexor tendon.

Dr. Dowd said that this case aptly illustrated the difficulties met with in treating this deformity. In spite of the beautiful illustrations seen in text-books, the result of the operation in real life was often far from satisfactory. He had, however, seen on that same day a case operated upon two years ago, where a severe form of contraction of the fingers followed. Under careful and persistent massage treatment the fingers have since become perfectly straight and the patient has good use of them.

HIP AMPUTATION FOR DIABETIC GANGRENE.

Dr. George Emerson Brewer presented a man aged fifty-four years, who was admitted to the surgical division of the City Hospital, in the spring of 1899, suffering with gangrene of the foot.

His general physical condition was bad, there was a large amount of sugar habitually present in the urine, and he suffered from thirst, polyuria, eczema and general weakness.

As the disease had been present for several weeks and seemed to be limited to the foot, and as a fairly well-marked red line was present, the house surgeon amputated at the upper third of the leg. He apparently did well for about eight days, the wound showing no evidence of infection. At this time, however, there appeared distinct evidences of necrosis of both flaps, which finally progressed to such an extent as to render a second amputation necessary. This was also done by the house surgeon, at a point just below the middle of the thigh. The same result followed, necrosis, but without infection.

An attempt was, however, made to bring about healing by care-

ful separation of the sloughs and frequent dressings, but without success. Extensive necrosis occurred, and as the wound subsequently became badly infected, amputation at the hip-joint was proposed, as affording him the only hope of saving life.

As his condition seemed critical the following method was employed.

The parts were prepared in the usual manner and covered with a wet biehloride dressing. The bowels thoroughly moved by calomel and a saline draught. One-third of a grain of morphine was administered hypodermically one hour after operation, and one-twentieth of a grain of strychnine, one-half hour later. Fifteen minutes before operation he had an enema of a pint of hot coffee.

He was then brought to the operating-room and placed in position on the table and everything prepared so that the operation could be performed without the slightest delay. Chloroform was then administered, and as he was already drowsy from the morphine, he quickly became unconscious, and during the entire operation took only about two drachms of the anæsthetic, the Wyeth pins were used and a circular incision through the skin was made, about three inches below the trochanter. The muscles were then divided about two inches above this, and the trochanter and neck of the bone exposed by an external vertical cut. Disarticulation was easily effected, the larger vessels secured, the wound generously packed with sterile gauze and partly united with silkworm-gut sutures. The time consumed from the entry of the first pin to the end of the dressing was a trifle over seventeen minutes.

The patient's condition improved after the operation, although both drain openings subsequently became mildly infected, and closed very slowly. His general condition, however, has markedly improved.

AMPUTATION AT HIP FOR CHRONIC OSTEOMYELITIS OF THE FEMUR.

Dr. Brewer presented a man, aged fifty-six years, who was admitted to the surgical service of the City Hospital about one year ago, where he underwent an amputation of the thigh by a colleague. When Dr. Brewer went on duty in May he found that the wound had not healed and that there was extensive disease of the femur.

As his general physical condition was fair a disarticulation at the hip was advised as the only operative intervention which promised a cure.

He was accordingly prepared in the usual manner, and the same procedure followed as in the other patient. Owing, however, to a slight delay in securing one or two vessels, the operation was somewhat longer in duration, the time being twenty-three minutes to the end of the dressing. As his tissues were presumably healthy, the wound was almost completely closed, one gauze drain only being employed. His recovery was uneventful.

DR. BREWER, in reply to a question, said that in the diabetic case the arteries, even the femoral, were quite hard, and there was some question whether the ligatures would hold. In the other case there was no trouble with the arteries.

In the first case the primary amputation was done in April, the third was done the following June.

DR. ROBERT H. M. DAWBARN said that while the result obtained by Dr. Brewer in both of his cases of amputation at the hip was very satisfactory, and one to be proud of, the question arose in his mind whether it might not have been safer, instead of doing a disarticulation, to have simply sawn through the femur, leaving the head, neck, and greater trochanter? And whether in most cases where the joint is disarticulated, it would not be better, instead, to do a high amputation through the thigh bone?

In the ordinary Furneaux Jordan (Brashear) disarticulation it will be found that the same skin-flaps will comfortably cover the head, neck and trochanter major, if these are left. The lower amputation is much the quicker, hence the safer, and involves less severance of muscles, less dead spaces.

Dr. Dawbarn said that it seemed to him that practically no crushing injury should justify hip-joint amputation, nor ought gangrene of the leg to do so. Only three conditions warrant disarticulation as compared with severance of the limb a little lower. These are (1) tubercular coxalgia too grave for other measures than amputation, (2) extensive necrosis of the femur, and (3) malignant disease of the femur.

Dr. BREWER said that in his second case, disarticulation was done because of extensive disease of the femur. In the first case he resorted to disarticulation in preference to sawing through the bone below the trochanter because he thought time could be saved by so doing.

OSTEOPLASTIC RESECTION OF THE SKULL AND CORTICAL EXCISION. EPILEPSY.

Dr. Brewer presented a man who was shown to the Society about one year ago, after an unsuccessful attempt to remove a lesion over the left motor area.

His history shows a traumatism eight years ago, which was followed by epilepsy, which gradually increased in severity and was finally accompanied by a progressive paralysis of the muscles of the right arm and leg.

When admitted to the City Hospital in January of this year he was having frequent attacks of *grand mal*,—often two or three times a day,—was unable to use his right arm and walked with great difficulty.

The indications of a cortical lesion were so evident that an exploratory osteoplastic resection was made over the left motor area.

When the bone-flap was raised and the dura excised, an extensive adhesion was found to exist between the dura and cortex of the brain. On attempting to remove the dura this was found to be caused by an extremely vascular inflammatory exudate which extended beyond the limits of the incision, and at the time seemed inoperable. After controlling the rather free hæmorrhage which resulted from the exploratory tear of the dura the wound was closed.

He remained in bed about two weeks, the wound healed permanently, and no untoward symptoms followed the exploration,—in fact, the paresis of the arm and leg seemed decidedly less marked, owing, probably, to the fact that the bone-flap was allowed to project slightly above the surrounding bone and thus relieved to some extent the pressure of the exudate over the motor area.

About six weeks after his recovery Dr. Joseph Collins and Dr. E. D. Fisher saw him in consultation.

After a thorough examination both of these gentlemen expressed the opinion that removal of the exudate, unless accompanied by an extensive cortical excision, would probably have no effect upon the epilepsy, as there was present well-marked evidences of cortical degeneration. They advised a long course of potassium iodide, and if no improvement followed, a cortical excision.

This advice was followed, and as no improvement was noted after nearly two months of energetic antisyphilitic treatment, and as the epileptic seizures were increasing in frequency (six to eight a day), he

was again anæsthetized on May 10, and a large osteoplastic flap raised, exposing the motor area.

Although the exudate observed at the last operation was much diminished in thickness and was far less vascular, it, together with the underlying cortex, was cut away to a depth of about five-eighths of an inch, the piece removed being about the size of a dollar.

The hæmorrhage was surprisingly slight and easily controlled, the dura replaced, and the bone-flap returned and secured.

Almost complete paralysis of the arm and an increased paralysis of the leg followed the operation, and the fits increased to such an extent that he would have from forty to fifty a day.

There was, however, no infection of the wound, which healed primarily. About ten days after the operation, and after a most exhausting series of almost continuous convulsions, they ceased suddenly, and for a period of nearly two months he was entirely free from them. Since that time he has had but ten in eight months, and has improved in every way except in the paralysis, which is practically the same.

The pathological examination of the specimen revealed nothing in particular, excepting that it was inflammatory in character.

EPITHELIOMA OF CHEEK AND LOWER JAW, REMOVAL OF THE GROWTH AND ONE-HALF OF THE JAW. NO RECURRENCE AFTER FOUR YEARS.

Dr. Alexander B. Johnson presented a man, fifty-six years of age, who was admitted to the Roosevelt Hospital, November 21, 1895.

One year before, without apparent cause, he had noticed a small lump upon the mucous membrane of the gum opposite the first molar tooth of the lower jaw. This lump was hard and only slightly painful and soon underwent ulceration, spreading to the bone and into the tissues of the cheek. The increase in size has been slow. The patient says he has lost some flesh and strength. There is no history of syphilis. He had all the teeth of the lower jaw of that side removed. Upon entrance to the hospital physical examination showed on the inner side of the right cheek that there is a somewhat diffuse, indurated area, measuring roughly an inch and a half horizontally by one inch in vertical diameter. The mass was hard, slightly tender, adherent to the ramus of the jaw; it involved the entire thickness of the cheek. Upon the surface of the mucous membrane over the growth there is a

rounded ulcer with a smooth base, raised and everted edges, and from which a watery discharge may be expressed.

There is no ulceration upon the skin, but the integument is infiltrated, puckered and adherent to the growth. There are two enlarged, hard, movable, lymphatic glands in the submaxillary region of that side. The patient is rather anæmic and has a slight continuous fever.

On November 27, 1898, the patient was operated upon under ether in the following manner:

A quadrilateral incision was made through the skin of the cheek, including a space one inch square, which was adherent to the growth. Two quadrilateral flaps were then dissected up from the tissues of the cheek, each an inch wide, one above the quadrilateral, circumscribed area, the other below; so that by being pulled upward and downward respectively, they would cover the defect caused by its removal.

From the centre of the quadrilateral area an incision was then carried horizontally forward to the angle of the mouth. A similar incision was carried outward and backward to a point opposite the middle ascending ramus of the jaw.

The growth in the cheek was then excised in the healthy structures. The horizontal ramus of the jaw was found infiltrated with the growth. The bone was severed in the median line in front with the saw and disarticulated at the temporo-maxillary articulation. One-half of the jaw was thus removed. The submaxillary triangle was then cleaned out, including the infected lymphatics and the submaxillary glands.

After the removal of the jaw the wound in the mucous membrane was sutured with catgut, the wounds in the skin with silk. A small drainage-tube was inserted into the submaxillary space through a small incision in the skin.

The microscopic diagnosis showed that the growth in the cheek was a typical epithelioma. Nearly the whole of the alveolar process and a considerable part of the horizontal ramus of the jaw were found infiltrated with disease of the same character. The lymphatic glands removed were also found to be carcinomatous. The patient was fed only per rectum for several days, and his mouth was kept clean by frequent applications of hydrogen peroxide. The wound healed by primary union. At the present time, a little more than four years after this operation, the patient is in good health, with no sign of recurrence.

The functional result appears to be quite good; there seems to

be no tendency for the remaining half of the jaw to be displaced unduly towards the operated side; and, although the patient had no teeth in the remaining half of the jaw, his gums are tough, and he states that he is able to chew beefsteak in a satisfactory manner.

SURGERY IN THE PRESENCE OF SUGAR IN THE URINE.

Dr. Arthur L. Fisk read a paper with the above title, for which see page 321.

Dr. A. B. Johnson said he could recall only two cases where he was called upon to amputate for diabetic gangrene. One was a middle-aged man who was suffering from gangrene of several toes. The superficial arteries were hard, and the urine contained a very large percentage of sugar. He first amputated through the middle of the leg, and the flaps promptly became gangrenous. He then re-amputated just above the knee, and gangrene again followed. The third amputation was done near the middle of the thigh; the flaps remained healthy and the man recovered from the operation. The hæmorrhage was very slight.

The second was an elderly man whose urine contained much sugar. One toe had become gangrenous, and this had spread as a phlegmonous process along the sole of the foot. An amputation was done through the middle of the leg, and the patient did well for about five days; then he became comatose and died two days later.

Dr. Howard Lilienthal said he had seen quite a number of these cases, especially at the Mount Sinai Hospital, where many cases of diabetes are treated. He had seen several cases where lower operations preceded the higher ones; he remembered only one case where the final operation was below the knee. In that instance,—a patient of Dr. Gerster's,—the gangrene was confined to several toes and the dorsum of the foot; an attempt was first made to perform a Syme's operation, and eventually amputation was done about six or seven inches below the knee. The flaps did not become gangrenous, but there was considerable necrosis of the tendons and intramuscular fascia.

Dr. Lilienthal said he had amputated at least half a dozen times for diabetic gangrene, and had never considered it worth while to operate below the knee. The Esmarch was used in all of his cases. The speaker said that he noticed when very long skin-flaps were left there was a necrosis, beginning as marginal and sometimes extending and vitiating the entire result. It struck him that this ten-

dency to gangrene might be diminished by using skin and muscle flaps, and he had adopted this plan some years ago. Long skin- and muscle-flaps should be employed, making no part of the flap of skin alone, and taking the further precaution to omit all primary sutures. The wound is lightly packed with gauze, and a few sutures are put in, but are not drawn tight for two or three days.

Dr. Lilienthal said he had operated on a number of cases where healing was very slow on account of necrosis of the fascia, and because of the presence of small particles of necrotic bone; but since he has adopted the method of leaving large skin and muscle flaps he has not seen a single instance where real gangrene of the flaps followed. The speaker said that Dr. Fisk, in his paper, had made no mention of diabetes in the young. In youthful individuals a certain type of diabetes occurs which is peculiarly malignant. The rules, therefore, which have been laid down in regard to operating upon adults who suffer from diabetes must be modified when we are dealing with children, and only operations of emergency should be undertaken, as the disease usually runs a rapidly fatal course in these patients.

Dr. Weir said that in amputating for diabetic gangrene it was generally conceded that the higher operations were preferable in respect to operations other than gangrene. In former years, the speaker said, he had felt some hesitation about surgical intervention in diabetic patients, but since then, under proper antiseptic precautions, he had found that wounds in diabetics might be said to do just as well, or nearly so, as those in other persons. The mishaps are just as rare in one class as in the other. After severe operations on diabetics it is true that we have greater shock, and this fact must be kept in mind. The resisting power of these patients has become impaired. Then, again, if the wound does unfortunately become septic, the constitutional symptoms are graver than in ordinary cases. Dr. Weir said he recently did an amputation of the shoulder in a diabetic case, and the result was perfectly satisfactory; of course, every precaution was taken to put the patient in as good condition as possible preparatory to operating.

Dr. Brewer said he thought a distinction should be made between different kinds of diabetes. A distinction is usually made between those patients from whose urine the sugar will disappear under a regulated diet and those upon whom diet apparently has no effect. The former class of cases are usually much less serious than the latter and the prognosis is better. At the City Hospital many amputations had been done for diabetic gangrene, but he could only

recall one case where an amputation below the knee proved successful. In that case the sugar afterwards disappeared from the urine. In another case there was apparent recovery after a series of amputations. In a third case, after several re-amputations, the patient died suddenly; the cause of his death could not be made out.

Dr. Charles L. Gibson said that glycosuria, which he thought was more or less transient in character, was not infrequently encountered in women about the time of the menopause. The speaker said he had formerly felt some hesitation about operating upon these women under such circumstances, but he had since learned to approach them in a different spirit. He recalled two cases, one requiring hysterectomy, and one with a large ovarian cyst, who had been refused operation because of the presence of sugar in the urine. Subsequently, however, as their condition grew worse, they were operated on, and both made an excellent recovery. The speaker said he did not regard cases of this kind as true diabetes.

Dr. Fisk, in closing the discussion, said that surgical operations in youthful diabetics, to which class Dr. Lilienthal had referred, would probably be in the line of emergency operations.

The consensus of opinion in regard to wounds in diabetics seems to be that while the wounds heal more slowly than in ordinary cases, infection, when it occurs, is always from without, and that the constitutional symptoms following such infection are very grave.